



United States  
Department of  
Agriculture

Forest  
Service

Northeastern Area  
State and Private Forestry

180 Canfield Street  
Morgantown, WV 26505-3101

File Code: 3400

Date: January 25, 2007

Mr. Steve Atzert, Project Leader  
Edwin B. Forsythe National Wildlife Refuge  
P.O. Box 72, 800 Great Creek Road  
Oceanville, NJ 08231

Dear Mr. Atzert:

On November 16, 2006, USDA Forest Service personnel conducted a gypsy moth egg mass survey at the Edwin B. Forsythe National Wildlife Refuge. Kevin Holcomb and Vinny Turner, of your staff assisted us during the survey. According to our records, this was the first gypsy moth egg mass survey ever conducted at the Refuge. The purposes of this survey were to determine gypsy moth population densities and to assess the potential for defoliation in 2007.

The survey started in the northern portion of the Refuge in Brick Township on the deCamp Wildlife Trail and progressed southward through the old Game Farm and finished near the town of Manahawkin. A total of six acres were surveyed. The survey consisted of casually walking a distance of at least 200 yards in each area while scanning tree boles and branches for gypsy moth egg masses. I am pleased to report that no new (2006) egg masses were detected and only a handful of old egg masses (2005 and before) were detected. During the survey, Kevin and Vinny were shown how to differentiate between old and new egg masses.

Based on the results of the survey, no defoliation is likely to occur at the Refuge in 2007. For your information, I have enclosed a map at the defoliation that was detected in the state of New Jersey in 2006 (Figure 1).

Due to time and budget constraints, Forest Service personnel will conduct a gypsy moth egg mass survey only by request. As discussed with Kevin and Vinny during our survey, refuge personnel should conduct a preliminary egg mass survey to determine if a survey by the USDA Forest Service is warranted. In your area, gypsy moth egg masses will be laid from the middle of June through the middle of July. Although the best time to survey is after leaf off, egg mass surveys can be started in August. To allow time for a secondary survey, if warranted, the preliminary egg mass survey should be completed by the end of September and the results sent to us shortly thereafter.

The preliminary egg mass survey should be concentrated in areas that are at least 25 percent oak and should follow the protocol similar to the survey conducted on November 16. Although this egg mass survey technique may not provide the most accurate estimate of a gypsy moth population, it is a fast and easy technique that is sufficient for a preliminary survey.

If warranted, the USDA Forest Service will conduct a more intensive survey using 1/4th acre fixed radius plots. Using this technique, all new egg masses observed on the overstory trees, understory vegetation, ground litter and duff in a fixed 17.6' radius plot are tallied. The total number of egg masses for each plot will be multiplied by 40 to determine the number of egg mass per acre. The number of egg masses per acre for each plot in an area are then averaged to



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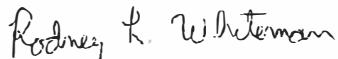


determine the number of egg masses per acre for an area. At each 1/40<sup>th</sup> acre plot, egg mass length will also be measured at the plots to determine the overall "health" of the gypsy moth population and as a measure of egg mass fecundity. If available, 3 egg masses will be measured at each plot and the lengths of all egg masses measured in an area will be averaged. The average egg mass length and the number of egg masses per acre are used in predicting the intensity of defoliation for the following year.

Another survey that our office provides to federal landowners is an aerial detection survey that is conducted annually in June or July. This survey is used to detect and map insect and disease damage, mortality, wind events, etc. If desired, an aerial survey can be conducted at Edwin B. Forsythe NWR. Just provide me a map showing the forested areas of the Refuge before April 30.

Please contact me at 304-285-1555 if you have any questions regarding this gypsy moth egg mass survey or survey letter.

Sincerely,



RODNEY L. WHITEMAN

Forester

Forest Health Protection

Enclosure

Cc: Noel Schneeberger, AO  
Joe Zoltowski, NJDA  
George Koeck, NJDF  
Kevin Holcomb, Forsythe NWR  
Vinny Turner, Forsythe NWR

RLW/blm

Figure 1. -- Gypsy Moth caused defoliation in New Jersey in 2006.

